

Sauers Engineering, Inc.

Civil & Environmental Engineers

May 11, 2009

Mr. Ron Dykstra, P.E.
Water Resources Control Engineer
California Water Quality Control Bd.
415 Knollcrest Drive, Suite 100
Redding, CA 96002

James C. Pedri, P.E.
Assistant Executive Officer
California Water Quality Control Bd.
415 Knollcrest Drive, Suite 100
Redding, CA 96002

RE: TENTATIVE WASTE DISCHARGE PERMIT
CITY OF PORTOLA NPDES # CA0077844

Dear Gentlemen:

Thank you for the opportunity to comment on the Tentative Waste Discharge Requirements for the City of Portola wastewater treatment plant. Sauers Engineering, Inc. is the engineering consultant for the City of Portola, and will be a Representative of the City of Portola at the Public Hearing date 11/12 June 2009 in Rancho Cordova.

At this time, we would like to offer the following comments on the Tentative Waste Discharge Requirements:

II. K. Compliance Schedules and Interim Requirements.

The Regional Board may include schedules of compliance in the permit to meet effluent limits. This Tentative Order does not include compliance schedules. As the City of Portola believes they may not immediately be able to meet discharge limitations for ammonia as written in the Tentative Order, we request that the Regional Board grants a compliance schedule to enable the City to evaluate and enact appropriate measures to ensure the ability to meet this effluent limitation. However, if final effluent limitations for ammonia are adjusted as described in the next section, the Discharger will not need a compliance schedule nor interim limits.

IV. A.1 Final Effluent Limitations

The Tentative Order issues an effluent limitation for Ammonia, Total as N, of 23 mg/l average monthly and 45 mg/l maximum daily. These limitations are based on:

Attachment F - Fact Sheet IV. Rationale for effluent limitations and discharge specifications C. WQBELs 3.e Ammonia.

The criteria for maximum concentration of ammonia is derived using an assumed protective temperature of 15.9°C in the mixed receiving water and an assumed protective pH in the mixed receiving water of 8.5. The temperature is derived from a flow weighted average of effluent and R-1 recorded temperatures utilizing maximum observed data in both cases.

The pH was not based on available data, but instead on the Basin Plan maximum receiving water value of 8.5. We have no indication that the Basin Plan numeric value has ever been reached in this stretch on the receiving water. In fact, as the Fact Sheet states, the 42 monitoring samples never show the receiving water exceeding 7.9. It is therefore protective to assume that the maximum recorded receiving water pH value of 7.9 might occur concurrently with the maximum allowable discharge pH of 9.0. A flow-weighted average pH between the two maximum conditions would result in a maximum pH at the edge of the mixing zone of 7.96. Therefore, using a pH of 8.0 in the calculations for ammonia would be protective and would be based upon recorded data applicable to this system. As stated in Section 1.2 of the SIP regarding data requirements, “When implementing the provisions of this Policy, the RWQCB shall use all available, valid, relevant, representative data and information, as determined by the RWQCB.”

Using a temperature of 15.9°C and a pH of 8.0 in the calculations results in the following adjusted values for ammonia criteria:

$$\begin{aligned}\text{CMC} &= 5.62 \\ \text{CCC} &= 2.23 \\ \text{4-day Ave C} &= 5.57\end{aligned}$$

The Discharger requests that effluent limitations as determined in Table F-10 be re-calculated based on these values.

VI. C.2.d. Groundwater Monitoring.

The Discharger operates a pond treatment system with discharge to the Middle Fork of the Feather River. The Tentative Waste Discharge Requirements and NPDES Permit require extensive monitoring of wastewater influent, effluent, upstream receiving water and downstream receiving water. It also requires a significant number of studies including Whole Effluent Toxicity, Best Practical Treatment and Control, Mixing Zone and Dilution Study, Septage Receiving, Salinity Reduction, Reclamation and Reduction of River Discharge, and development of a Pollutant Minimization Program. In addition to this increased monitoring and study, the Tentative Order further requires installation of a groundwater monitoring program. It is the opinion of the Discharger that the expanded required monitoring and extensive studies will identify any pollution problems that have not been addressed, and that additional study of groundwater will not provide any useful information, but will direct scarce resources away from addressing more pertinent issues. The Discharger requests that the requirement for a groundwater monitoring program be removed from this Tentative Order.

VII.C.2.e. Diffuser Installation and Mixing Zone / Dilution Study.

The Discharger has developed a mixing zone model as described. The Tentative Order further requires that the Discharger shall install a diffusing structure to provide rapid mixing at the point of discharge. While the Discharger recognizes the importance of achieving complete mixing in the minimum zone attainable, we anticipate significant challenges in constructing a diffusing structure in the area in question. This stretch of river is designated as a “Wild and Scenic” river course and additionally is within the FEMA defined “Floodway”. Therefore, in addition to the typical requirements for a Stream Bed Alteration Permit and Army Corps of Engineers permit,

and potential impairment to existing wetlands, the “Wild and Scenic” and “Floodway” designations may further inhibit the construction of any such diffusing structure.

Further, there are technical challenges, in that the constructed wetlands through which the effluent flows reduce the available head between the discharge and the river. In order to install an effective diffusing structure, either the effluent will need to be diverted upstream from the wetlands, sacrificing the beneficial effects of the wetlands on water quality, (and negatively impacting the wetlands), or a structure will need to be constructed between the wetlands and the river discharge point, collecting effluent as well as wetlands contributions. One problem with this scenario is the very limited head available at that point. Either the diffusing structure would be low-head, passive type of limited effectiveness, or a pump would be required, which may not be feasible given the Wild & Scenic and Floodway designations.

The Discharger will be able to comply with the requirement to submit additional mixing zone information by means of a dye study, tracer study or other method. The Discharger requests that upon completion of such a study, the issue be re-evaluated based on the information provided by the study. At this time, we request that any definitive requirement for installation of a diffusing structure be removed from this Tentative Order, recognizing that the Re-opener Provision could allow for re-inclusion of this requirement if the dilution study does not support the mixing zone study conclusions.

VII.C.4.a. Treatment Pond Operating Requirements.

Subsections (v and vi), refer to Land Discharge Specification and “non-irrigation season”: These references are not applicable to this system at this time, as the discharger holds wastewater in ponds until release to river is permitted. At this time, no land discharge by way of spray irrigation or other means of irrigation is occurring. Section (v) may apply during non-discharge periods rather than non-irrigation periods.

Attachment E - Monitoring and Reporting Program (General)

The City of Portola experiences freezing temperatures that inhibit the collection of water quality samples at some times at some locations. In particular, frozen surfaces of the river and surrounding river bank inhibit upstream and downstream receiving water location sampling. In these instances, with the varying river depths and widths that occur during storm events, at some times there is no access to a sampling point deemed safe by personnel. This condition also occurs in some of the treatment ponds under some limited conditions. The Discharger requests that in the infrequent circumstances when such freezing occurs, that they be relieved from such monitoring, and permitted to note on sample forms “Frozen conditions, no sample taken”, without penalty. This condition is only relevant at times when both the system is discharging and the river is frozen. It is not a typical condition, but it does occur, and poses a risk to the safety of the monitoring personnel.

Attachment E - Monitoring and Reporting Program, II. Table E-1 Monitoring Station Locations.

In Table E-1, pond numbering is inconsistent with Attachment C, in which the ponds between the Emergency Pond and the Six Acre Pond are labeled Ponds 1 through 5. Attachment C is consistent with the City’s internal record keeping. Discharger requests an editing of the location description in Table E-1 to match Attachment C. This will avoid mis-reporting data.

**Attachment E - Monitoring and Reporting Program, V.B.1 Chronic Toxicity Testing
Monitoring Frequency**


The second of these tests should be performed 365 days prior to permit expiration (written as adoption).

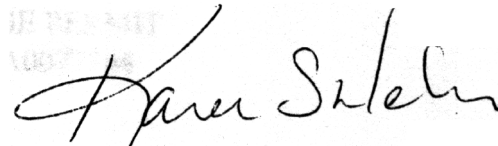
Attachment F - Fact Sheet II. Facility Description, D. Compliance Summary.

The fact sheet makes reference to Administrative Civil Liability Complaint No. R5-2008-0517 regarding excursions in effluent pH. This was actually ACLC No. R5-2008-0633.

Thank you for the opportunity to comment on the Tentative Waste Discharge Requirements for the City of Portola. Please call if we can provide any additional information regarding these comments.

Sincerely,


Dean D. Marsh, P.E.
Sauers Engineering, Inc.


Karen S. Nelson, P.E.
Sauers Engineering, Inc.

cc: Mr. Todd Roberts, Director of Public Works, City of Portola
Mr. Michael Achter, Chief Plant Operator, City of Portola